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**MARICOPA COUNTY  
AIR POLLUTION CONTROL REGULATIONS  
REGULATION III - CONTROL OF AIR CONTAMINANTS**

**RULE 310  
FUGITIVE DUST SOURCES**

**SECTION 100 - GENERAL**

- 101 PURPOSE:** To limit particulate matter emissions into the ambient air from any property, operation or activity that may serve as a fugitive dust source. The effect of this rule shall be to minimize the amount of PM<sub>10</sub> entrained into the ambient air as a result of the impact of human activities by requiring measures to prevent, reduce, or mitigate particulate matter emissions.
- 102 APPLICABILITY:** The provisions of this rule shall apply to all dust generating operations except: normal farm cultural practices under Arizona Revised Statutes (ARS) §49-457 and ARS §49-504.4 and open areas, vacant lots, unpaved parking lots, and unpaved roadways which are not located at sources that require any permit under these rules.

**SECTION 200 - DEFINITIONS:** For the purpose of this rule, the following definitions shall apply. See Rule 100 (General Provisions And Definitions) of these rules for definitions of terms that are used but not specifically defined in this rule.

- 201 BULK MATERIAL** - Any material, including but not limited to, earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter (i.e., aggregate base course (ABC)), dirt, mud, demolition debris, cotton, trash, cinders, pumice, saw dust, feeds, grains, fertilizers, and dry concrete, which are capable of producing fugitive dust at an industrial, institutional, commercial, governmental, construction, and/or demolition site.
- 202 BULK MATERIAL HANDLING, STORAGE, AND/OR TRANSPORTING OPERATION** - The use of equipment, haul trucks, and/or motor vehicles, such as but not limited to, the loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials, which are capable of producing fugitive dust at an industrial, institutional, commercial, governmental, construction, and/or demolition site.
- 203 CARRY-OUT/TRACKOUT** - Any and all bulk materials that adhere to and agglomerate on the exterior surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen onto a paved public roadway.

- 204 CONTROL MEASURE** - A technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust. Control measures include but are not limited to:
- 204.1** Curbing.
  - 204.2** Paving.
  - 204.3** Pre-wetting.
  - 204.4** Applying dust suppressants.
  - 204.5** Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization.
  - 204.6** Limiting, restricting, phasing and/or rerouting motor vehicle access.
  - 204.7** Reducing vehicle speeds and/or number of vehicle trips.
  - 204.8** Limiting use of off-road vehicles on open areas and vacant lots.
  - 204.9** Utilizing work practices and/or structural provisions to prevent wind and water erosion onto paved public roadways.
  - 204.10** Appropriately using dust control implements.
  - 204.11** Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of a paved public roadway to control carry-out and trackout.
  - 204.12** Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls, and tailgates.
  - 204.13** Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage.
- 205 DISTURBED SURFACE AREA** - A portion of the earth's surface (or material placed thereupon) which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition, thereby increasing the potential for the emission of fugitive dust. For the purpose of this rule, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described in Section 301 and Section 302 of this rule.
- 206 DUST CONTROL IMPLEMENT** - A tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emissions.

- 207 DUST CONTROL PLAN** - A written plan describing all control measures.
- 208 DUST GENERATING OPERATION** - Any activity capable of generating fugitive dust, including but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of this rule, landscape maintenance and/or playing on a ballfield shall not be considered a dust generating operation. However, landscape maintenance shall not include grading, trenching, nor any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.
- 209 DUST SUPPRESSANT** - Water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the U.S. Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.
- 210 EARTHMOVING OPERATION** - The use of any equipment for an activity which may generate fugitive dust, such as but not limited to, cutting and filling, grading, leveling, excavating, trenching, loading or unloading of bulk materials, demolishing, blasting, drilling, adding to or removing bulk materials from open storage piles, back filling, soil mulching, landfill operations, or weed abatement by discing or blading.
- 211 FREEBOARD** - The vertical distance between the top edge of a cargo container area and the highest point at which the bulk material contacts the sides, front, and back of a cargo container area.
- 212 FUGITIVE DUST** - The particulate matter, which is not collected by a capture system, which is entrained in the ambient air, and which is caused from human and/or natural activities, such as but not limited to, movement of soil, vehicles, equipment, blasting, and wind. For the purpose of this rule, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III (Control Of Air Contaminants) of these rules.
- 213 GRAVEL PAD** - A layer of washed gravel, rock, or crushed rock which is at least one inch or larger in diameter, maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site.
- 214 GRIZZLY** - A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.

- 215 HAUL TRUCK** - Any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- 216 INTERMITTENT SOURCE** - A fugitive dust generating operation and/or activity that lasts for a duration of less than six consecutive minutes.
- 217 MOTOR VEHICLE** - A self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers or other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.
- 218 NORMAL FARM CULTURAL PRACTICE** - All activities by the owner, lessee, agent, independent contractor, and/or supplier conducted on any facility for the production of crops and/or nursery plants. Disturbances of the field surface caused by turning under stalks, tilling, leveling, planting, fertilizing, or harvesting are included in this definition.
- 219 OFF-ROAD VEHICLE** - Any self-propelled conveyance specifically designed for off-road use, including but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.
- 220 OPEN AREAS AND VACANT LOTS** - Any of the following described in subsection 220.1 through subsection 220.4 of this rule. For the purpose of this rule, vacant portions of residential or commercial lots that are immediately adjacent and owned and/or operated by the same individual or entity are considered one vacant open area or vacant lot.
- 220.1** An unsubdivided or undeveloped tract of land adjoining a developed or a partially developed residential, industrial, institutional, governmental, or commercial area.
- 220.2** A subdivided residential, industrial, institutional, governmental, or commercial lot, which contains no approved or permitted buildings or structures of a temporary or permanent nature.
- 220.3** A partially developed residential, industrial, institutional, governmental, or commercial lot.
- 220.4** A tract of land, in the nonattainment area, adjoining agricultural property.
- 221 OWNER AND/OR OPERATOR** - Any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule.

- 222 PAVE** - To apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).
- 223 PUBLIC ROADWAYS** - Any roadways that are open to public travel.
- 224 ROUTINE** - Any dust generating operation which occurs more than 4 times per year or lasts 30 cumulative days or more per year.
- 225 SILT** - Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 Sieve.
- 226 TRACKOUT CONTROL DEVICE** - A gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved roadway, that controls or prevents vehicular trackout.
- 227 UNPAVED HAUL/ACCESS ROAD** - Any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.
- 228 UNPAVED PARKING LOT** - Any area larger than 5,000 square feet that is not paved and that is used for parking, maneuvering, or storing motor vehicles.
- 229 UNPAVED ROAD** - Any road or equipment path that is not paved. For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.
- 230 URBAN OR SUBURBAN OPEN AREA** - The definition of urban or suburban open area is included in Section 220 (Definition Of Open Areas And Vacant Lots) of this rule.
- 231 VACANT LOT** - The definition of vacant lot is included in Section 220 (Definition Of Open Areas And Vacant Lots) of this rule.
- 232 VACANT PARCEL** - The definition of vacant parcel is included in Section 220 (Definition Of Open Areas And Vacant Lots) of this rule.
- 233 WIND-BLOWN DUST** - Visible emissions from any disturbed surface area, which are generated by wind action alone.
- 234 WIND EVENT** – When the 60-minute average wind speed is greater than 25 miles per hour.
- 235 WORK SITE** - Any property upon which any dust generating operations and/or earthmoving operations occur.

## SECTION 300 - STANDARDS

**301 OPACITY LIMITATION FOR FUGITIVE DUST SOURCES:** The owner and/or operator of a source engaging in dust generating operations shall not allow visible fugitive dust emissions to exceed 20% opacity.

**301.1 Wind Event:** Exceedances of the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the owner and/or operator demonstrates all of the following conditions:

- a. All control measures required were followed and 1 or more of the control measures in Table 2 were applied and maintained;
- b. The 20% opacity exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures;
- c. The owner and/or operator compiled and retained records, in accordance with Section 502 (Recordkeeping) of this rule; and
- d. The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

**301.2 Emergency Maintenance Of Flood Control Channels and Water Retention Basins:** No opacity limitation shall apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

**301.3 Vehicle Test And Development Facilities And Operations:** No opacity limitation shall apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities.

**302 STABILIZATION REQUIREMENTS FOR FUGITIVE DUST SOURCES:**

**302.1 Unpaved Parking Lot:** The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity, and either:

- a. Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or
- b. Shall not allow the silt content to exceed 8%.



**302.2 Unpaved Haul/Access Road:** The owner and/or operator of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive):

- a. Shall not allow visible fugitive dust emissions to exceed 20% opacity, and either:
  - (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or
  - (2) Shall not allow the silt content to exceed 6%.
- b. Shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. If complying with subsection 302.2(b) of this rule, must include, in a Dust Control Plan, the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

**302.3 Open Area And Vacant Lot Or Disturbed Surface Area:** The owner and/or operator of an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall meet at least 1 of the standards described in subsection 302.3(a) through subsection 302.3(g) below, as applicable. The owner and/or operator of such inactive disturbed surface area shall be considered in violation of this rule if such inactive disturbed surface area is not maintained in a manner that meets at least 1 of the standards described in subsection 302.3(a) through subsection 302.3(g) below, as applicable.

- a. Maintain a visible crust; or
- b. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher; or
- c. Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
- d. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
- e. Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction

velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or

- f. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- g. Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the Environmental Protection Agency (EPA).

**302.4 Vehicle Test And Development Facilities And Operations:** No stabilization requirement shall apply to vehicle test and development facilities and operations when dust is required to test and validate design integrity, product quality, and/or commercial acceptance, if such testing is not feasible within enclosed facilities.

**303 DUST CONTROL PLAN REQUIRED:** The owner and/or operator of a source shall submit to the Control Officer a Dust Control Plan with any permit applications that involve earthmoving operations which would equal or exceed 0.10 acre. Compliance with this section does not effect a source's responsibility to comply with the other standards of this rule. The Dust Control Plan shall describe all control measures to be implemented before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

**303.1** A Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of this rule. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a source is still subject to all requirements of this rule at all times. In addition, the owner and/or operator of a source with an approved Dust Control Plan is still subject to all of the requirements of this rule, even if such owner and/or operator is complying with the approved Dust Control Plan.

**303.2** At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan.

**303.3** The following subsections, subsection 303.3(a) and subsection 303.3(b) of this rule, describe the permit applications with which a Dust Control Plan must be submitted.

- a. If a person is required to obtain an Earthmoving Permit under Regulation II (Permits And Fees) of these rules, then such person must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any dust generating operation.
- b. If a person is required to obtain or has obtained a Title V Permit, a Non-Title V, or a General Permit under Regulation II (Permits And Fees) of these rules, then such person must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any routine dust generating operation.

**303.4** A Dust Control Plan shall not be required:

- a. To play on a ballfield and/or for landscape maintenance. For the purpose of this rule, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities.
- b. To establish initial landscapes or to redesign existing landscapes of legally-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, city parks, and county regional parks, hiking paths, horse trails, bicycle paths, ballfields, playgrounds at camp sites, and camp sites, which are used exclusively for purposes other than travel by motor vehicles. For the purpose of this rule, establishing initial landscapes or redesigning existing landscapes does not include grading, trenching, nor any other mechanized surface disturbing activities.

**304 ELEMENTS OF A DUST CONTROL PLAN:** A Dust Control Plan shall contain, at a minimum, all of the following information:

**304.1** Names, address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust generating operation.

**304.2** A drawing, on at least 8½ x 11" paper, which shows:

- a. Entire project site boundaries;
- b. Acres to be disturbed with linear dimensions;
- c. Nearest public roads;
- d. North arrow; and
- e. Planned exit locations onto paved public roadways.

**304.3** Control measures or combination thereof to be applied to all actual and potential fugitive dust sources, before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

- a.** At least one primary control measure and one contingency control measure must be identified, from Table 1 of this rule, for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the owner and/or operator shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan.
- b.** Alternatively, a control measure(s) that is not in Table 1 of this rule may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in Section 301 and Section 302 of this rule, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in this rule.
- c.** If complying with subsection 302.2(b) (Stabilization Requirements For Fugitive Dust Sources-Unpaved Haul/Access Roads) of this rule, must include the number of vehicles traveled on the unpaved haul/access roads (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

**304.4** Dust suppressants to be applied, including product specifications or label instructions for approved usage:

- a.** Method, frequency, and intensity of application.
- b.** Type, number, and capacity of application equipment.
- c.** Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

**304.5** Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved and/or access points join paved public roadways.

**305 DUST CONTROL PLAN REVISIONS:** If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed Section 301 and Section 302 of this rule, then the Control Officer shall issue a written notice to the owner and/or operator of such source explaining such determination. The owner and/or operator of such source shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved

Dust Control Plan, such owner and/or operator must still comply with all requirements of this rule.

**306 CONTROL MEASURES:** The owner and/or operator of a source shall implement control measures before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. See subsection 304.3, Table 1, and Table 2 of this rule. For the purpose of this rule, any control measure that is implemented must meet the applicable standard(s) described in Section 301 and in Section 302 of this rule, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in this rule. Failure to comply with the provisions of Section 308 (Work Practices) of this rule, as applicable, and/or of an approved Dust Control Plan, is deemed a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, the owner and/or operator of a dust generating operation is still subject to all requirements of this rule at all times. In addition, the owner and/or operator of a dust generating operation with an approved Dust Control Plan is still subject to all of the requirements of this rule, even if such owner and/or operator of a dust generating operation is complying with the approved Dust Control Plan.

**307 PROJECT INFORMATION SIGN:** The owner and/or operator of a source shall erect a project information sign at the main entrance, that is visible to the public, of all sites with an Earthmoving Permit that are five acres or larger. Such sign shall be a minimum of four feet long by four feet wide, have a white background, have black block lettering which is at least four inches high, and shall contain the following information:

**307.1** Project name; and

**307.2** Name and phone number of person(s) responsible for conducting the project; and

**307.3** Text stating: "Complaints? Call Maricopa County Environmental Services Department (insert the current/accurate phone number for the complaint phone line)."

**308 WORK PRACTICES:** When engaged in the following specific activities, the owner and/or operator of a source shall comply with the following work practices in addition to implementing, as applicable, the control measures described in Table 1 of this rule. Such work practices shall be implemented to meet the standards described in Section 301 and Section 302 of this rule.

**308.1 Bulk Material Hauling Off-Site Onto Paved Public Roadways:**

- a. Load all haul trucks such that the freeboard is not less than three inches; and
- b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and

- c. Cover all haul trucks with a tarp or other suitable closure; and
- d. Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

**308.2 Bulk Material Hauling On-Site Within The Boundaries Of The Work**

**Site:** When crossing a public roadway upon which the public is allowed to travel while construction is underway:

- a. Load all haul trucks such that the freeboard is not less than three inches; and
- b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- c. Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in Table 1 (Trackout-1J, 2J, 3J) of this rule.

**308.3 Spillage, Carry-Out, Erosion, And/Or Trackout:**

- a. Install a suitable trackout control device (Examples of trackout control devices are described in Table 1 (Trackout-1J, 2J, 3J) of this rule) that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site at all exits onto a paved public roadway:
  - (1) From all work sites with a disturbed surface area of five acres or larger.
  - (2) From all work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.
- b. Cleanup spillage, carry-out, erosion, and/or trackout on the following time-schedule:
  - (1) Immediately, when spillage, carry-out, and/or trackout extends a cumulative distance of 50 linear feet or more; or
  - (2) At the end of the work day, when spillage, carry-out, erosion, and/or trackout are other than the spillage, carry-out, erosion, and/or trackout described above, in subsection 308.3(b)(1) of this rule.

**308.4 Unpaved Haul/Access Roads:** Implement 1 or more control measure(s) described in Table 1 (Unpaved Haul/Access Roads-1C through 5C) of this rule, before engaging in the use of or in the maintenance of unpaved haul/access roads.

**308.5 Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:**

- a. Inside the PM<sub>10</sub> nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day; or
- b. Outside the PM<sub>10</sub> nonattainment area, restrict vehicular trips to no more than 20 per day; or
- c. Implement control measures, as described in Table 1 (Unpaved Haul/Access Roads-1C through 5C) of this rule.

**308.6 Open Storage Piles:** For the purpose of this rule, an open storage pile is any accumulation of bulk material with a 5% or greater silt content which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or other equivalent method approved in writing by the Control Officer and the Administrator of EPA, that the silt content is less than 5%.

- a. During stacking, loading, and unloading operations, apply water, as necessary, to maintain compliance with Section 301 of this rule; and
- b. When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:
  - (1) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
  - (2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or

- (3) Meet one of the stabilization requirements described in subsection 302.3 of this rule; or
- (4) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing this subsection, subsection 308.6(b)(4), must also implement either subsection 308.6(b)(2) or subsection 308.6(b)(3) above.

**308.7 Earthmoving Operations On Disturbed Surface Areas 1 Acre Or Larger:** If water is the chosen control measure, operate water application system (e.g., water truck) while conducting earthmoving operations on disturbed surface areas 1 acre or larger.

**308.8 Weed Abatement By Discing Or Blading:**

- a. Apply water before weed abatement by discing or blading occurs; and
- b. Apply water while weed abatement by discing or blading is occurring; and
- c. Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs; or
- d. Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs.

**SECTION 400 - ADMINISTRATIVE REQUIREMENTS**

**401 DUST CONTROL PLAN POSTING:** The owner and/or operator of a source shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the approved Dust Control Plan available on-site at all times. The owner and/or operator of a source that has been issued a Block Permit shall not be required to keep a copy of the plot plan, an element of a Dust Control Plan, on-site.

**402 COMPLIANCE SCHEDULE:** The requirements of this rule supercede any conflicting requirements that may be found in existing Dust Control Plans.

**402.1 For Earthmoving Permits:** If any changes to a Dust Control Plan, associated with an Earthmoving Permit, are necessary as a result of the



most recent revisions of this rule, such changes shall not be required until the Earthmoving Permit is required to be renewed.

- 402.2 For Non-Title V Permits And For Title V Permits:** If any changes to a Dust Control Plan, associated with a Non-Title V Permit or with a Title V Permit, are necessary as a result of the most recent revisions of this rule, then the owner and/or operator shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures described in Rule 220 and Rule 210 of these rules respectively, no later than 6 months after the effective date of the most recent revisions to this rule.

## **SECTION 500 - MONITORING AND RECORDS**

- 501 COMPLIANCE DETERMINATION:** To determine compliance with this rule, the following test methods shall be conducted:

### **501.1 Opacity Observations:**

- a. Dust Generating Operations:** Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of these rules, except opacity observations for intermittent sources shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.
- b. Unpaved Parking Lot:** Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules.
- c. Unpaved Haul/Access Road:** Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules.

### **501.2 Stabilization Observations:**

- a. Unpaved Parking Lot:** Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rules. When more than 1 test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of this rule.

- b. Unpaved Haul/Access Road:** Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads And Unpaved Parking Lots) of these rule. When more than 1 test method is permitted for a determination, an exceedance of the limits established in this rule determined by any of the applicable test methods constitutes a violation of this rule.
- c. Open Area And Vacant Lot Or Disturbed Surface Area:** Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction, at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in subsection 501.2(c)(1) through subsection 501.2(c)(7) below, as applicable. The owner and/or operator of such inactive disturbed surface area shall be considered in violation of this rule if such inactive disturbed surface area is not maintained in a manner that meets at least 1 of the standards described in subsection 302.3 of this rule, as applicable.
- (1)** Appendix C, Section 2.3 (Test Methods For Stabilization-Visible Crust Determination) (The Drop Ball/Steel Ball Test) of these rules for a visible crust; or
  - (2)** Appendix C, Section 2.4 (Test Methods For Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of these rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher; or
  - (3)** Appendix C, Section 2.5 (Test Methods For Stabilization-Determination Of Flat Vegetative Cover) of these rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%; or
  - (4)** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%; or
  - (5)** Appendix C, Section 2.6 (Test Methods For Stabilization-Determination Of Standing Vegetative Cover) of these rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation)

that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or

- (6) Appendix C, Section 2.7 (Test Methods For Stabilization-Rock Test Method) of these rules for a percent cover that is equal to or greater than 10%, for non-erodible elements; or
- (7) An alternative test method approved in writing by the Control Officer and the Administrator of the EPA.

**502 RECORDKEEPING:** Any person who conducts dust generating operations that require a Dust Control Plan shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. Any person who conducts dust generating operations which do not require a Dust Control Plan shall compile and retain records that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied. Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided within 48 hours, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

**503 RECORDS RETENTION:** Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least six months following the termination of the dust generating operation. Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained for at least 1 year from the date such records were initiated. If a person has obtained a Title V Permit and is subject to the requirements of this rule, then such person shall retain records required by this rule for at least 5 years from the date such records are established.

**504 TEST METHODS ADOPTED BY REFERENCE:** The test methods listed in this section are adopted by reference. These adoptions by reference include no future editions or amendments. Copies of the test methods listed in this section are available for review at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

**504.1** ASTM Method C136-96A ("Standard Test Method For Sieve Analysis Of Fine And Coarse Aggregates"), 1996 edition.

**504.2** ASTM Method D2216-98 ("Standard Test Method For Laboratory Determination Of Water (Moisture) Content Of Soil And Rock By Mass"), 1998 edition.

**504.3** ASTM Method 1557-91(1998) ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>))), 1998 edition.

**TABLE 1**

<b>SOURCE TYPE AND CONTROL MEASURES</b>	
<b>Vehicle Use In Open Areas And Vacant Lots:</b>	
1A	Restrict trespass by installing signs.
2A	Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.
<b>Unpaved Parking Lots:</b>	
1B	Pave.
2B	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.1 of this rule.
3B	Apply a suitable dust suppressant, in compliance with subsection 302.1 of this rule.
<b>Unpaved Haul/Access Roads:</b> (The control measures listed below (1C-5C) are required work practices, per subsection 308.4 of this rule.)	
1C	Limit vehicle speed to 15 miles per hour or less and limit vehicular trips to no more than 20 per day.
2C	Apply water, so that the surface is visibly moist and subsection 302.2 of this rule is met.
3C	Pave.
4C	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.2 of this rule.
5C	Apply a suitable dust suppressant, in compliance with subsection 302.2 of this rule.
<b>Disturbed Surface Areas:</b>	
<b>Pre-Activity:</b>	
1D	Pre-water site to the depth of cuts.
2D	Phase work to reduce the amount of disturbed surface areas at any one time.
<b>During Dust Generating Operations:</b>	
3D	Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule.
4D	Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.
5D	Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind blown material leaving a site. If constructing fences or wind barriers, must also implement 3D or 4D above.
<b>Temporary Stabilization During Weekends, After Work Hours, And On Holidays:</b>	
6D	Apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
7D	Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.
8D	Restrict vehicular access to the area, in addition to either of the control measures described in 6D and 7D above.

**Permanent Stabilization (Required Within 8 Months Of Ceasing Dust Generating Operations):**

- 9D Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions, in compliance with subsection 302.3 of this rule.
- 10D Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 11D Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

**Open Areas And Vacant Lots:**

- 1E Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.
- 2E Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 3E Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

**Control measures 1F – 1M below are required work practices and/or methods designed to meet the work practices, per Section 308 (Work Practices) of this rule.**

**Bulk Material Handling Operations And Open Storage Piles:**

**During Stacking, Loading, And Unloading Operations:**

- 1F Apply water as necessary, to maintain compliance with Section 301 of this rule; and

**When Not Conducting Stacking, Loading, And Unloading Operations:**

- 2F Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
- 3F Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
- 4F Meet the stabilization requirements described in subsection 302.3 of this rule; or
- 5F Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing 5F, must also implement 3F or 4F above.

**Bulk Material Hauling/Transporting:**

**When On-Site Hauling/Transporting Within The Boundaries Of The Work Site When Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:**

- 1G Load all haul trucks such that the freeboard is not less than 3 inches when crossing a public roadway upon which the public is allowed to travel while construction is underway; and

- 2G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 3G Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in Table 1 (Trackout 1J, 2J, 3J) of this rule; and

**When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:**

- 4G Limit vehicular speeds to 15 miles per hour or less while traveling on the work site; or
- 5G Apply water to the top of the load such that the 20% opacity standard, as described in Section 301 of this rule, is not exceeded, or cover haul trucks with a tarp or other suitable closure.

**Off-Site Hauling/Transporting Onto Paved Public Roadways:**

- 6G Cover haul trucks with a tarp or other suitable closure; and
- 7G Load all haul trucks such that the freeboard is not less than 3 inches; and
- 8G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 9G Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

**Cleanup Of Spillage, Carry Out, Erosion, And/Or Trackout:**

- 1H Operate a street sweeper or wet broom with sufficient water, if applicable, at the speed recommended by the manufacturer and at the frequency(ies) described in subsection 308.3 of this rule; or
- 2H Manually sweep-up deposits.

**Trackout:**

- 1J Install a grizzly or wheel wash system at all access points.
- 2J At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep.
- 3J Pave starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

**Weed Abatement By Discing Or Blading:**

- 1K Pre-water site and implement 3K or 4K below.
- 2K Apply water while weed abatement by discing or blading is occurring and implement 3K or 4K below.
- 3K Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs; or
- 4K Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs.

**Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:**

- |    |   |
|----|---|
| 1L | Inside the PM <sub>10</sub> nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day; or |
| 2L | Outside the PM <sub>10</sub> nonattainment area, restrict vehicular trips to no more than 20 per day; or  |
| 3L | Implement control measures, as described in Table 1 (Unpaved Haul/Access Roads-1C through 5C) of this rule.                                       |

<b>Earthmoving Operations On Disturbed Surface Areas 1 Acre Or Larger:</b>
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- |    |  |
|----|--|
| 1M | If water is the chosen control measure, operate water application system (e.g., water truck), while conducting earthmoving operations on disturbed surface areas 1 acre or larger. |
|----|--|



**TABLE 2**

Note: Control measures in [brackets] are to be applied only to sources outside the nonattainment area.

<b>SOURCE TYPE AND WIND EVENT CONTROL MEASURES</b>	
<b>Dust Generating Operations:</b>	
1A	Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented; or
2A	Apply water or other suitable dust suppressant twice [once] per hour, in compliance with Section 301 of this rule; or
3A	Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
4A	Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind-blown material leaving a site. If implementing 4A, must also implement 2A or 3A above.
<b>Temporary Disturbed Surface Areas (After Work Hours, Weekends, Holidays):</b>	
1B	Uniformly apply and maintain surface gravel or dust suppressants, in compliance with subsection 302.3 of this rule; or
2B	Apply water to all disturbed surface areas three times per day. If there is any evidence of wind-blown dust, increase watering frequency to a minimum of four times per day; or
3B	Apply water on open storage piles twice [once] per hour, in compliance with subsection 302.3 of this rule; or
4B	Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
5B	Utilize any combination of the control measures described in 1B, 2B, 3B, and 4B above, such that, in total, these control measures apply to all disturbed surface areas.

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